What is claimed is:

1. An isolated nucleic acid comprising an hOAT sequence.

2. An isolated nucleic acid sequence comprising an hOAT sequence encoding a polypeptide capable of transporting organic anion.

3. A replicable vector comprising nucleic acid encoding hOAT.

4. A vector of Claim 3 which is capable of expressing biologically active hOAT polypeptide in recombinant cells.

5. A recombinant cell comprising a replicable vector encoding hOAT.

6. A recombinant cell of Claim 5 expressing hOAT capable of transporting organic anion.

7. A recombinant cell comprising nucleic acid encoding endogenous genomic hOAT which has been transformed with an exogenous nucleic acid so as to express enhanced levels of hOAT from the endogenous hOAT.

8. An isolated hOAT polypeptide.

9. The polypeptide of Claim 8 having the hOAT amino acid sequence of SEQ. ID. NO. 2.

10. An isolated DNA comprising the hOAT coding sequence depicted in SEQ. ID. NO. 1.

11. A transgenic animal expressing hOAT.

12. A screening method comprising providing a candidate hOAT agonist or antagonist, contacting the candidate with hOAT nucleic acid or polypeptide,

determining the effect of the candidate on the transcription of the hOAT nucleic acid or expression or biological activity of the hOAT polypeptide, identifying a hOAT agonist or antagonist from the candidates, and optionally preparing additional quantities of the agonist or antagonist so identified.

13. A method comprising identifying one or more alleles and/or isoforms of hOAT polypeptide sequence in individual humans and determining whether or not such alleles or isoforms correlate with nephrotoxicity of a selected drug in individual humans.

14. A method comprising identifying nucleic sequence variation in hOAT coding sequence, hOAT expression control domains or hOAT RNA splicing sequences in individual humans and determining whether or not such variation correlates with nephrotoxicity of a selected drug in individual humans.

15. A method comprising providing a covalently modified form of a nucleotide phosphonate analogue and determining whether or not the analogue is transported by hOAT.

16. The method of Claim 15 wherein the nucleotide phosphonate analogue is a derivative of PMEA, cidofovir or PMPA.

17. A method comprising providing a compound known or suspected to be neurologically active, contacting the compound with hOAT nucleic acid or polypeptide, and determining the effect of the compound on the hOAT nucleic acid or polypeptide.

18. The method of Claim 17 wherein the compound is known or suspected to affect a psychiatrically recognized thought disorder.

19. A method comprising identifying a drug-drug interaction by contacting a candidate drug with hOAT polypeptide and at least a second drug whose effect on hOAT-mediated transport of the candidate drug is to be determined, and analyzing the effect of the second one or more drugs on hOAT-mediated transport of the candidate drug.